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ABSTRACT

Educational sociologists have long been interested in the class origins of students intending to be teachers. There is a belief in the educational community that female pre-service teachers tend to be largely drawn from middle class families while the males tend to be largely drawn from working or lower class families (Hansen, 1967). Six null hypotheses were formulated to answer the general research question: Is there a real or statistically significant difference in the social class origins of female and male pre-service teachers at Mankato State University? The two-factor Index of Social Position (ISP) developed by Hollingshead and Meyers was used to determine the social class origins of the subjects of study. The findings clearly indicate that the differences between the two groups in terms of social class origins is not significant. In addition, some of the corollary beliefs about the cognitive and verbal skills and values and attitudinal differences between female and male pre-service teachers require further research. (BZ)

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IS THERE A REAL DIFFERENCE IN THE SOCIAL CLASS ORIGINS OF FEMALE AND MALE PRE-SERVICE TEACHERS AT MANKATO STATE UNIVERSITY?

by

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IS THERE A REAL DIFFERENCE IN THE SOCIAL CLASS ORIGINS OF FEMALE AND MALE PRE-SERVICE TEACHERS AT MANKATO STATE UNIVERSITY?

Richard F. Daly

Educational sociologists have long been interested in the social origins of intending teachers, for example, their rural-urban, ethnic and social class origins. They have been particularly interested in focusing their research efforts on the social class origins of pre-service teachers. Some of the reasons for this long-standing interest is that the social class concept is functionally related to: (1) cognitive and verbal skill differences, (2) ethnic and racial differences, (3) values and attitude differences, and (4) the socialization process in school and society (Levine, 1984).

Indeed, some of their earlier research findings related to the social class origins of pre-service teachers have become part of the conventional wisdom of persons responsible for the conduct of teacher education programs. For example, a long held belief of these leaders is that there is a difference in the social origins of female and male pre-service teachers, that is, females tend to be largely drawn from middle class families while males tend to be largely drawn from working or lower class families (Hansen, 1967).

Problem and Hypotheses

This belief is not without its adherents at Mankato State University, Mankato, Minnesota. However, this belief has not been submitted to the test of experimental evidence. Moreover, the question at issue is not whether there is a difference between groups, but whether or not there is a real or statistically significant difference between groups. Consequently, it is the purpose of this investigation to answer the general research question: Is there a real or statistically significant difference in the social class origins of female and male pre-service teachers at Mankato State University?

Six null hypotheses were formulated to answer the general research question and guide the research process. Hypotheses two and three are really corollaries of hypothesis one while hypotheses five and six are corollaries of hypothesis four. The hypotheses are as follows:

1. The percentage of females of middle class social origin in the female teacher pre-service group does not significantly differ from the percentage of males of middle class social origin in the male teacher pre-service group.
2. The percentage of females of upper-middle class social origin in the female teacher pre-service group does not significantly differ from the percentage of males of upper-middle class social origin in the male teacher pre-service group.
3. The percentage of females of lower-middle class social origin in the female teacher pre-service group does not significantly differ from the percentage of males of lower-middle class social origin in the male teacher pre-service group.
4. The percentage of females of lower class social origin in the female teacher pre-service group does not significantly differ from the percentage of males of lower class social origin in the male teacher pre-service group.
5. The percentage of females of upper-lower class social origin in the female teacher pre-service group does not significantly differ from the percentage of males of upper-lower class social origin in the male teacher pre-service group.
6. The percentage of females of lower-lower class social origin in the female teacher pre-service group does not significantly differ from the percentage of males of lower-lower social origin in the male teacher pre-service group.

Groups Studied and Methods of Procedure

This study involved pre-service teachers enrolled in the investigator's undergraduate classes at Mankato State University, Mankato, Minnesota, during the academic years of 1985-86 and 1986-87 (fall and spring quarters of 1985-86 academic year and the fall quarter of the 1986-87 academic year). The necessary data regarding the social class origins of the intending teachers was gathered from a values survey instrument developed by the investigator. This approach yielded social class origin data for 296 pre-service teacher education students, 215 females and 81 males who were in attendance on the day the instrument was administered.

The two-factor ISP (index of social position) developed by Hollingshead and Meyers was used by the investigator to determine the social class origins of the subjects of the study. The two-factor technique uses the same educational and occupational scales as their three factor technique, the weight of education is four; the weight for occupation, seven. The ISP score is determined in the same way, by multiplying the educational category by four and the occupational category by seven, and adding the products obtained. If the resultant sum is less than 17, the subject falls in the highest class; if the sum is greater than 64, the subject falls in the lowest social class. The intervening classes fall at roughly equal intervals on the scale between (Meyers and Roberts, 1959).

In 1972, the investigator acknowledged the higher education boom in awarding undergraduate and graduate degrees that followed in the wake of World War II by adjusting the seven position educational scale. For example, the two top categories became: (1) graduate professional training: doctorate degree and (2) graduate professional training: masters degree. To maintain the seven position educational scale, the following category was eliminated: less than seven years of school. These changes have been maintained in the intervening years.

Data obtained from the two-factor ISP scale technique appear in Table 1. Hollingshead numbered the social classes with Roman numerals: I corresponded to Warner's upper class; II to Warner's upper-middle class; III to Warner's lower-middle class; IV to Warner's upper-lower class; and V to Warner's lower-lower class (Lasswell, 1965). Table 1 data follows Warner's social class origin classification system.

As previously cited in the statement of the problem, a general research question and appropriate null hypotheses were formulated to guide the research process. The necessary formulas and tables were followed from Garrett's book, Elementary Statistics to test the significance of the difference between two percentages (Garrett, 1964). The .05 level of significance for a two-tailed test were determined to be sufficiently exacting for this investigation; consequently, the critical ratio (t) must reach or go beyond 1.96 for the difference between groups to be marked significant for a given hypothesis. These data are presented in Table 2.

Study Findings

The first null hypothesis tested: The percentage of females of middle class social origin in the female teacher pre-service group does not significantly differ from the percentage of males of middle class social origin in the male teacher pre-service group. As seen in Table 2, 65 per cent of the female group were classified as middle class while 59 percent of the male group were categorized as middle class. The difference between the two groups is 6 per cent favoring the female group. This difference yielded a critical ratio (t) of .95 which fails to reach the .05 level of significance for 294 degrees of freedom. Hence the difference between the two groups must be marked not significant.

The second null hypothesis tested: The percentage of females of upper-middle class social origin in the female teacher pre-service group does not

TABLE 1. SOCIAL CLASS ORIGIN CATEGORIES OF FEMALE AND MALE PRE-SERVICE TEACHER GROUPS LISTED BY NUMBER (N) AND PERCENTAGE (%)

SOCIAL CLASS ORIGIN	FEMALE GROUP N	%	MALE GROUP N	%	TOTAL GROUP N	%
Upper	0	0	0	0	0	0
Upper-middle	8	4	4	5	12	4
Lower-middle	132	61	44	54	176	59
Upper-lower	55	26	24	30	79	27
Lower-lower	20	9	9	11	29	10
TOTAL	215	100	81	100	296	100

TABLE 2. SIGNIFICANCE OF THE DIFFERENCE BETWEEN FEMALE AND MALE PRE-SERVICE TEACHER GROUPS SOCIAL ORIGIN CATEGORY PERCENTAGES

SOCIAL CLASS ORIGIN	FEMALE GROUP %	MALE GROUP %	% DIFFERENCE (+-)	CRITICAL RATIO (t)	.05 LEVEL OF SIGNIFICANCE (1.96)
Middle	65	59	6	.95	*
Upper	4	5	1	.40	*
Lower	61	54	7	1.09	*
Lower	35	41	6	.95	*
Upper	26	30	4	.69	*
Lower	9	11	2	.51	*

*Not significant at .05 level for 294 degrees of freedom
**Significant at .05 level for 294 degrees of freedom

significantly differ from the percentage of males of upper-middle class social origin in the male teacher pre-service group. As shown in Table 2, 4 per cent of the female group were categorized as upper-middle class; on the other hand, 5 per cent of the male group were classified as upper-middle class. The difference between the two groups is 1 per cent favoring the male group. This difference resulted in a critical ratio (t) of .40 which falls short of the .05 level of significance for 294 degrees of freedom. Thus the difference between the two groups must be marked not significant.

The third null hypothesis tested: The percentage of females of lower-middle class social origin in the female teacher pre-service group does not significantly differ from the percentage of males of lower-middle class social origin in the male teacher pre-service group. As seen in Table 2, 61 per cent of the female group were categorized as lower-middle class while 54 per cent of the male group were categorized as lower-middle class. The difference is 7 per cent favoring the female group. This difference yielded a critical ratio (t) of 1.09 which fails to reach the .05 level of significance for 294 degrees of freedom. Hence the difference between the two groups must be marked not significant.

The fourth null hypothesis tested: The percentage of females of lower class social origin in the female teacher pre-service group does not significantly differ from the percentage of males of lower class social origin in the male teacher pre-service group. As seen in Table 2, 35 per cent of the female group were classified as lower class; on the other hand, 41 per cent of the male group were classified as lower class. The difference between the two groups is 6 per cent favoring the male group. This difference resulted in a critical ratio (t) of .95 which falls short of the .05 level of significance for 294 degrees of freedom. Thus the difference between the two groups must be marked not significant.

The fifth null hypothesis tested: The percentage of females of upper-lower class social origin in the female teacher pre-service group does not significantly

differ from the percentage of males of upper-lower class social origin in the male teacher pre-service group. As shown in Table 2, 26 per cent of the female group were classified as upper-lower class while 30 per cent of the male group were categorized as upper-lower class. The difference between the two groups is 4 per cent favoring the male group. This difference yielded a critical ratio (t) of .69 which fails to reach the .05 level of significance for 294 degrees of freedom. Hence the difference between the two groups must be marked not significant.

The sixth null hypothesis tested: The percentage of females of lower-lower class social origin in the female teacher pre-service group does not significantly differ from the percentage of males of lower-lower class social origin in the male teacher pre-service group. As indicated in Table 2, 9 per cent of the female group were categorized as lower-lower class. The difference between the two groups is 2 per cent favoring the male group. This difference resulted in a critical ratio (t) of .51 which falls short of the .05 level of significance for 294 degrees of freedom. Thus the difference between the two groups must be marked not significant.

Study Conclusions

Six null hypotheses were formulated to answer the general research question and problem of this study: Is there a real or statistically significant difference in the social class origins of female and male pre-service teachers at Mankato State University? The findings, in the form of statistical evidence, clearly indicate that the differences between the two groups must be marked not significant. Accordingly, we accept all null hypotheses and conclude that on the basis of present evidence there is no real difference between female and male groups in terms of social class origins at Mankato State University.

Apparently, the long held belief of persons responsible for the conduct of teacher education programs that "female pre-service teachers are largely drawn from middle class families while males are largely drawn from working or lower class families" needs to be statistically qualified at Mankato State University in terms of the present experimental evidence. In addition, some of their corollary beliefs about the cognitive and verbal skill, values and attitude, etc., differences between female and male pre-service teachers also need to be submitted to the test of experimental evidence.

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